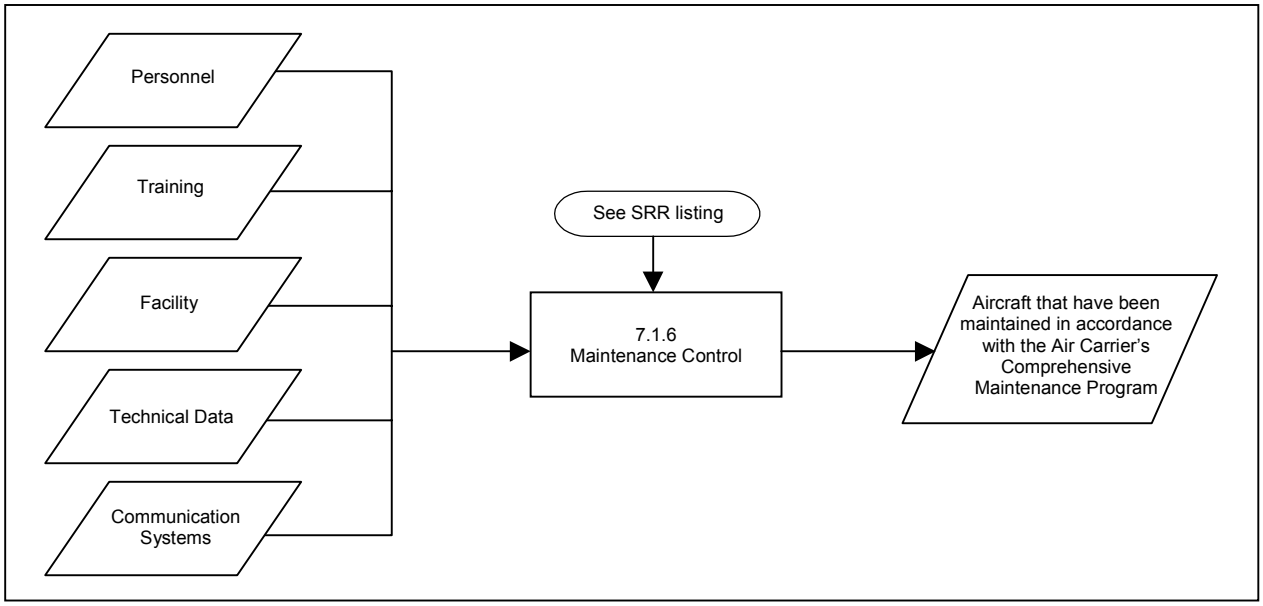
Safety Attribute Inspection (SAI) Job Aid



ELEMENT SUMMARY INFORMATION

Element: 7.1.6 Maintenance Control

Purpose of this Element (Air Carrier's responsibility): To ensure the Air Carrier's Maintenance Control coordinates aircraft maintenance in accordance with its policies and procedures.

Objective (FAA responsibility): To determine if the air carrier's Maintenance Control process includes safety attributes.

Inputs:
- Personnel
- Training
- Facility
- Technical Data
- Communication Systems

Output:
- Aircraft which have been maintained in accordance with the Air Carrier's Comprehensive Maintenance Program

Performance Measures:
- The Air Carrier utilizes Maintenance Control to manage aircraft non-routine maintenance in accordance with the Manual and the Maintenance Control Policies and Procedures document (MCPP).
- The Air Carrier authorizes trained and qualified personnel as Maintenance Controllers in accordance with the standards contained in the MCPP document.

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SRR:

- 121.365 (a) Maintenance, preventive maintenance, and alteration organization.
- 121.367 (a), (b), (c) Maintenance, preventive maintenance, and alterations programs.
- 121.369 (b)(9) Manual requirements.
- 121.375 Maintenance and preventive maintenance training programs.

Other CFRs and/or FAA Guidance:

- FAA Order 8300.10, Vol. 2, Chap. 221 "Conducting Evaluation of Operator/Applicant's Maintenance Facility"
- FAA Order 8300.10, Vol. 3, Chap. 131 "Inspecting Operator's Maintenance Facility"
- HBAW 94-03 "Guidance for ETOPS" (Requirements for a Centralized Maintenance Control)
- FSAW 96-02 "General Certification and Operations Requirements for Aircraft Transitioning from Part 135 to 121"

SRR SPECIFIC INFORMATION

SRR	Intent	Inspectors
121.365(a)	To require the Air Carrier to have an organization to perform the work which utilizes trained, qualified, and authorized personnel to serve as Maintenance Control when the Air Carrier is authorized LLM, RVSM, MNPS, ETOPS, or a fleet of ten or more aircraft (Complex Air Carrier).	***Certification:*** *Airworthiness* ***Surveillance:*** *Airworthiness*
121.367(a), (b), (c)	To require a Complex Air Carrier to have a Maintenance Control which ensures: • Maintenance is performed IAW the Air Carrier's Manual. • Competent personnel manage the maintenance of aircraft. • Aircraft are airworthy when released to service. Aircraft comply with the maintenance requirements of Part 121.	***Certification:*** *Airworthiness* ***Surveillance:*** *Airworthiness*
121.369(b)(9)	TBD	***Certification:*** *Airworthiness* ***Surveillance:*** *Airworthiness*
121.375	To provide a requirement for the Air Carrier or its maintenance providers to develop training program for maintenance and inspection personnel.	***Certification:*** *Airworthiness* ***Surveillance:*** *Airworthiness*

Safety Attribute Inspection (SAI) Job Aid

7.1.6 Maintenance Control

SECTION 1 - RESPONSIBILITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person who is accountable for the quality of the Maintenance Control process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who is responsible for the quality of the Maintenance Control process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Maintenance Control process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who is answerable for the quality of the Maintenance Control process?	❑ **YES** **If yes, provide the name:** ❑ **NO** **If no, explain:**
2. Does the person understand the procedures associated with the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**
3. Does the person understand the controls associated with the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**
4. Does the person understand the interfaces associated with the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**
5. Does the person understand the process measurements associated with the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**
6. Is the responsibility of this position clearly documented in the air carrier's Manual(s)?	❑ **YES** **If no, explain:** ❑ **NO**
7. Are the qualification standards for this position clearly documented?	❑ **YES** **If no, explain:** ❑ **NO**
7a Are the qualification standards for this position appropriate for the duties that are assigned?	❑ **YES** **If no, explain:** ❑ **NO**
8. Does the person meet the qualification standards?	❑ **YES** **If no, explain:** ❑ **NO**
9. Does the person acknowledge that he/she has responsibility for the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**
10. Does the person know who has authority to establish and modify the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**

7.1.6 Maintenance Control

SECTION 2 – AUTHORITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person with the authority to establish and modify the Maintenance Control process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who has the authority to establish or modify the Maintenance Control process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Maintenance Control process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who has authority to establish and modify the air carrier's policies for the Maintenance Control process?	❑ YES **If yes, provide the name:** ❑ NO **If no, explain:**
2. Does the person understand the procedures associated with the Maintenance Control process?	❑ YES **If no, explain:** ❑ NO
3. Does the person understand the controls associated with the Maintenance Control process?	❑ YES **If no, explain:** ❑ NO
4. Does the person understand the interfaces associated with the Maintenance Control process?	❑ YES **If no, explain:** ❑ NO
5. Does the person understand the process measurements associated with the Maintenance Control process?	❑ YES **If no, explain:** ❑ NO
6. Is the authority of this position clearly documented in the air carrier's Manual(s)?	❑ YES **If no, explain:** ❑ NO
7. Are the qualification standards for this position clearly documented?	❑ YES **If no, explain:** ❑ NO
7a Are the qualification standards for this position appropriate for the duties that are assigned?	❑ YES **If no, explain:** ❑ NO
8. Does the person meet the qualification standards?	❑ YES **If no, explain:** ❑ NO
9. Does the person acknowledge that he/she has authority for the Maintenance Control process?	❑ YES **If no, explain:** ❑ NO
10. Does the individual know who has the responsibility for the Maintenance Control process?	❑ YES **If no, explain:** ❑ NO
11. Are the procedures for delegation of authority clearly documented for the Maintenance Control process?	❑ YES **If no, explain:** ❑ NO

7.1.6 Maintenance Control

SECTION 3 – PROCEDURES ATTRIBUTE

Objective: To determine if the air carrier has documented procedures for accomplishing the Maintenance Control process.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Maintenance Control process to ensure that they contain who, what, where, when, and how.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI
3. Discuss the Maintenance Control process with appropriate personnel to gain an understanding of the procedures.
4. Observe the Maintenance Control process to gain an understanding of the procedures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Do written procedures exist to achieve the desired result of the Maintenance Control process:	
1.1 Do written procedures require Maintenance Control personnel to use the instructions and information contained in the Maintenance Control Policies and Procedures document (MCPP)? [SRR 121.369(b)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.2 Do written procedures provide detailed instructions and information for Maintenance Control to issue Ferry Flight Permits? [SRR 121.369(b)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.3 Do written procedures require the Air Carrier to use the training curriculum in the MCPP document for training persons who perform Maintenance Control functions? [SRR 121.365(a), SRR 121.375]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.4 Do written procedures require Maintenance Control to defer items in accordance with the provisions of the Minimum Equipment List (MEL) and the Manual?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.5 Do written procedures require Maintenance Control personnel to utilize the Shift Turnover Form to notify the next shift of maintenance in progress? [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.6 Do written procedures require Maintenance Control to inform/dispatch flight following when the aircraft is released for service? [SRR 121.369(b)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.7 Do written procedures require Maintenance Control to have available the scratch and dent history of each aircraft?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
2. Do the procedures identify: who, what, where, when and how?	❑ YES ❑ NO **If no, explain:**

7.1.6 Maintenance Control ***SECTION 3 – PROCEDURES ATTRIBUTE***	
3. Are the procedures in compliance with the CFR(s)?	❑ **YES** **If no, explain:** ❑ **NO**
4. Do the procedures conform to other written guidance (E.g., Operations Specifications, FAA Orders, Airworthiness Directives, Advisory Circulars, Handbook Bulletins, Directives, and Manufacturer's Recommendations)?	❑ **YES** **If no, explain:** ❑ **NO**
5. Does the air carrier have the resources to support the written procedures for the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**
6. If alternate procedures exist for use during irregular conditions, do they achieve the same desired results as the primary procedures so that an equivalent level of safety is maintained? (E.g., a manual system used as a result of equipment failure).	❑ **YES** **If no, explain:** ❑ **NO** ❑ **N/A, No alternate procedures exist for this element**
7. Are the procedures published in different manuals relating to the Maintenance Control process consistent?	❑ **YES** **If no, explain:** ❑ **NO**
8. Does the air carrier have a documented method for assessing the impacts of procedural changes to the Maintenance Control process?	❑ **YES** **If no, explain:** ❑ **NO**

7.1.6 Maintenance Control

SECTION 4 – CONTROL ATTRIBUTE

Objective: To determine if checks and restraints are designed into the Maintenance Control process to ensure a desired result is achieved.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Maintenance Control process.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI
3. Discuss the Maintenance Control process with appropriate personnel to gain an understanding of the controls.
4. Observe the Maintenance Control process to gain an understanding of the controls.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following checks and restraints built into the Maintenance Control process:

1.1 Does the Air Carrier have and maintain a Maintenance Control Policies and Procedures document (MCPP) that contains the standards for the Maintenance Control program? [SRR 121.367(a), (b), (c)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.2 Does the Air Carrier have and maintain a training curriculum for Maintenance Control? [SRR 121.375] [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.3 Does the Air Carrier have and maintain a Shift Turnover Form which provides the following information: [SRR 121.369(b)(9)]	
1.3.1 Dates and time? [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.3.2 Identification and location of aircraft where work is in progress? [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.3.3 Persons performing that work and the means of communication with them? [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.3.4 Description and status of the work performed? [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.3.5 Maintenance that must be completed prior to releasing aircraft to service? [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**

7.1.6 Maintenance Control

SECTION 4 – CONTROL ATTRIBUTE

1.3.6 Identification of the person completing the form? [SRR 121.369(b)(9)]	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.4 Does the MCPP document prohibit Maintenance Control personnel from releasing aircraft to service before the maintenance has been completed, including pre-departure inspections (e.g., ETOPS, LLM, RVSM)?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.5 Does the MCPP document include a method for tracking requirements of aircraft that operate under special authorizations (e.g., ETOPS, LLM, RVSM)?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.6 Does the Air Carrier provide and maintain technical data for use by Maintenance Control personnel (e.g., GMM, MEL, RVSM documents)?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.7 Does the Air Carrier provide and maintain a list of key people for use by Maintenance Control including, but not limited to, company personnel, maintenance providers, manufacturer representatives, and emergency maintenance contacts?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.8 Does the MCPP document contain the following standards for Maintenance Control:	
1.8.1 Communication systems?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.8.2 Facilities (environmental control, light, and sound)?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.8.3 Staffing?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.8.4 Technical Data?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.8.5 Equipment/Furnishing?	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
2. Do the checks and restraints ensure the desired result is achieved for the Maintenance Control process?	❑ YES ❑ NO **If no, explain:**
3. Does the air carrier have a documented method for assessing the impacts of any changes made to checks and restraints in the Maintenance Control process?	❑ YES ❑ NO **If no, explain:**
4. Does the air carrier have the resources to support the checks and restraints for the Maintenance Control process?	❑ YES ❑ NO **If no, explain:**

7.1.6 Maintenance Control

SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE

Objective: To determine if the air carrier measures and assesses its Maintenance Control process, to identify and correct problems or potential problems.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Maintenance Control process.
2. Discuss the Maintenance Control process with appropriate personnel to gain an understanding of the process measures.
3. Observe the Maintenance Control process to gain an understanding of the process measures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. <Deleted>
2. Does the air carrier's Maintenance Control process include the following process measurements?

2.1 The Air Carrier audits the Maintenance Control process to ensure that it complies with the Maintenance Control Policies and Procedures document (MCPP).	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
2.2 The Air Carrier audits the Maintenance Control process to ensure that it meets the standards for communication, facilities, staffing, technical data, and equipment/furnishing.	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
3. Does the air carrier document their process measurement methods and results?	❑ YES ❑ NO **If no, explain:**
4. Are the air carrier's process measurement methods effective?	❑ YES ❑ NO **If no, explain:**
5. Does the air carrier use their process measurement results to improve their programs?	❑ YES ❑ NO **If no, explain:**
6. Are the process measurement results accessible to the FAA?	❑ YES ❑ NO **If no, explain:**
7. Does the organization that conducts the process measurement have direct access to the person with responsibility for the Maintenance Control process?	❑ YES ❑ NO **If no, explain:**
8. Does the air carrier have the resources to support the process measurement for the Maintenance Control process?	❑ YES ❑ NO **If no, explain:**

7.1.6 Maintenance Control

SECTION 6 – INTERFACES ATTRIBUTE

Objective: To determine if the air carrier identifies and manages the interactions between the Maintenance Control process and the other element processes within the air carrier organization.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Maintenance Control process.
2. Discuss the Maintenance Control process with appropriate personnel to gain an understanding of the interfaces.
3. Observe the Maintenance Control process to gain an understanding of the interfaces.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following interfaces identified for the Maintenance Control process:

1.1 Appropriate Operational Equipment (Element 1.1.2)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.2 Airworthiness Release or Log Book Entry (Element 1.2.1)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.3 Major Repairs and Alterations (Element 1.2.2)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.4 Maintenance Log/Recording Requirements (Element 1.2.3)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.5 MIS Reports (Element 1.2.4)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.6 Mechanical Reliability Reports (Element 1.2.5)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.7 Aircraft Listing (Element 1.2.6)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.8 Maintenance Program (Element 1.3.1)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.9 Inspection Program (Element 1.3.2)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**

7.1.6 Maintenance Control

SECTION 6 – INTERFACES ATTRIBUTE

1.10 Maintenance Facilities/Main Maintenance Base (Element 1.3.3)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.11 RII (Element 1.3.4)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.12 MEL/CDL/Deferred Maintenance (Element 1.3.5)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.13 AD Management (Element 1.3.6)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.14 Outsource Organization (Element 1.3.7)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.15 Parts/Material Control/SUP (Element 1.3.10)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.16 Continuous Analysis and Surveillance (CAS) (Element 1.3.11)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.17 GMM/Equivalent (Element 1.3.14)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.18 Fueling (Element 1.3.16)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.19 De-Icing Program (Element 1.3.18)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.20 Other Programs Approved by Operations Specifications	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.21 Content Consistency Across Manuals (Element 2.1.2)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.22 Availability (Element 2.1.4)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**

7.1.6 Maintenance Control

SECTION 6 – INTERFACES ATTRIBUTE

1.23 Airman Duties/Flight Deck Procedures (Element 3.1.3)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.24 Operational Control (Element 3.1.4)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.25 Maintenance Training (Element 4.1.1)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.26 Maintenance Certificate Requirements (Element 4.1.2)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.27 Maintenance Training Program (Element 4.2.1)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.28 RII Training Requirements (Element 4.2.2)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.29 Line Stations (Servicing and Maintenance) (Element 5.1.1)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.30 Director of Maintenance (Element 7.1.1)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.31 Chief Inspector (Element 7.1.2)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.32 Manual Currency (Element 2.1.1)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
1.33 Manual Distribution (Element 2.1.3)	❑ YES ❑ NO ❑ N/A **If no or N/A, explain:**
2. List any additional interfaces identified:	
3. Are there written procedures for the use of air carrier personnel in the application of these interfaces?	❑ YES ❑ NO **If no, explain:**
4. Are there controls to ensure that interfaces occur?	❑ YES ❑ NO **If no, explain:**
5. Are the interfaces between the Maintenance Control process and other processes treated consistently in the Manual(s)?	❑ YES ❑ NO **If no, explain:**